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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/639,171	08/16/2000	Yoshihiro Tsukamura	SON-1889	4002

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RADER FISHMAN & GRAUER PLLC
LION BUILDING
1233 20TH STREET N.W., SUITE 501
WASHINGTON, DC 20036

EXAMINER

HESELTIME, RYAN J

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/639,171

Applicant(s)

TSUKAMURA ET AL.

Examiner

Ryan J Hesselline

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 14, 2004 has been entered.

Response to Arguments

2. Applicant's arguments on page 7, fourth paragraph, filed April 14, 2004, with respect to claims 6-9 have been fully considered and are persuasive. The objection of claims 6-9 has been withdrawn.

3. Applicant's arguments with respect to claims 1, 4, 5, 10 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 8 recites the limitation "the personal computer" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

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7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osten et al. (USPN 5,719,950, newly cited), hereafter Osten, in view of Senior (USPN 6,400,836, previously cited).

9. Regarding claims 1 and 4, Osten discloses a fingerprint collating device and method for collating a user's fingerprint with registered fingerprint information to effect personal authentication (column 5, line 53-67), said device and method comprising: an external computer 6 (Figure 1; column 6, line 1-9); a prism 42 (column 7, line 30-32) for reading said fingerprint to create read fingerprint information (column 6, line 20-32), and to create read history information (biological state acceptance range) indicating that said read fingerprint information has been created (column 6, line 1-19); a read history storage 20 for storing said read history information (column 6, line 66-column 7, line 12) and executing a control program (logic pattern) when instructed by the external computer (column 9, line 52-65); a controller 38 for accepting read fingerprint information indicating that read fingerprint information is normally produced (individual is not incapacitated, dismembered, or deceased) through said prism (column 6, line 1-19; column 7, line 2-12, line 30-32); and a collator 14 collating said read fingerprint information with said registered fingerprint information 16 to effect personal authentication and output a result of authentication when said fingerprint is accepted (column 6, line 20-32; column 9, line 52-65), said read history information is stored in said read history storage, and the control

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program is executed (column 6, line 66-column 7, line 12). The examiner would like to point out that in the substitute specification on page 6, last paragraph to page 7, first paragraph, it is stated that when the fingerprint image data is normally produced, the collation controller (fingerprint reading means) sets a fingerprint accepting flag as reading history information indicating that the fingerprint has been read in the program RAM (reading history storing means), instead of the read history information and the fingerprint accepting flag being separate as claimed.

10. Osten does not explicitly disclose setting a fingerprint accepting flag associated with said read fingerprint information when it is indicated that read fingerprint information is normally produced. Senior discloses a combined fingerprint acquisition and control device including the use of an authentication flag that is set indicating the present authentication (column 2, line 28-38). When the flag expires, for example when a passively acquired fingerprint is of poor quality (not normally produced through a prism or other imaging device), the user is prompted to present a finger to the scanner for a good quality, verifiable print for verification (column 8, line 66-column 9, line 35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to set a fingerprint accepting flag associated with read fingerprint information when it is indicated that read fingerprint information is normally produced as taught by Senior in order to maintain a high level of security without interrupting the operator's work flow and to prevent unauthorized access to a system after a certain timeout has occurred, the user is not identified, or the fingerprint image is not normally produced (column 9, line 22-35).

11. Regarding claim 2, Osten discloses that said collator effects said personal authentication by using said registered (pre-stored) fingerprint information supplied from an external storage medium (magnetic or optical identification card), wherein said registered fingerprint information

includes a fingerprint template that corresponds to an owner of the external storage medium (column 6, line 47-55).

12. Regarding claim 3, Osten discloses registered fingerprint information storage (pre-stored memory file 16) for storing registered fingerprint information, in which said collator effects said personal authentication by using said registered fingerprint information stored in said registered fingerprint information storage (column 6, line 20-32).

13. Claims 5-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oster in view of Senior in view of Johnson (USPN 3,619,060, newly cited).

14. Regarding claims 5 and 10, Osten discloses a method for collating a fingerprint in a fingerprint collating system comprising: means for generating a collation instruction (inherent) and an index number ("identification code"; column 5, line 53-67); means for generating a fingerprint image of a user (column 6, line 20-32); means for setting a fingerprint accepting flag in a first memory unit when a fingerprint image of the user is normally produced through the prism (column 6, line 1-19; column 7, line 2-12; see also above discussion of claims 1 and 4 with respect to Senior); means for reading a fingerprint template (pre-stored memory file 16) associated with the index number from a second memory unit (column 5, line 53-67); and means for collating the fingerprint image and the fingerprint template when the fingerprint image of the user is generated and the fingerprint accepting flag is set (column 6, line 20-32; column 9, line 52-65).

15. Osten does not explicitly disclose means for illuminating a bottom face of a prism based on the collation instruction or means for generating a fingerprint image of a user when an air

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layer exists between a finger of a user and a top face of the prism. Johnson discloses an identification device including a prism 18 and a light source 12 for illuminating a bottom face 20 of the prism and generating a fingerprint image of a user when an air layer exists (total internal reflection, light will not be reflected where something touches the interface and destroys the index of refraction ratio of the glass and air) between a finger of a user and a top face 22 of the prism (Figure 1; column 2, line 74-column 3, line 31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to illuminate the bottom face of a prism and generate a fingerprint image of a user when an air layer exists between a finger of a user and the top face of the prism as taught by Johnson in order to form an image of a human finger by collecting scattered light to form an image on a focal plane (column 1, line 32-46).

16. Regarding claim 14, Osten discloses a system for collating a fingerprint of a user, comprising: a computer 6 that generates a fingerprint collation instruction and an index number, (column 5, line 53-67), wherein the computer has a first memory unit (column 6, line 47-55); a prism 42 (column 7, line 30-32) that generates a fingerprint image of a user when the collation instruction is received from the computer and an air layer (see above discussion of claims 5 and 10 with respect to Johnson) exists between a portion of a finger of the user and a top face of the prism (column 6, line 20-32); and a collating unit that retrieves a fingerprint template of the user from a second memory unit 16 based on the index number and collates the fingerprint image of the user with the fingerprint template (column 6, line 20-32; column 9, line 52-65) when a fingerprint accepting flag is set in the first memory unit (see above discussion of claims 1 and 4 with respect to Senior), wherein the fingerprint accepting flag is set when a fingerprint image is normally produced through the prism (column 6, line 1-19; column 7, line 2-12).

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17. Regarding claims 6 and 11, Osten discloses means (frame grabber 12) for converting the fingerprint image to a digital signal (Figure 1; column 6, line 33-45).

18. Regarding claims 7, 12 and 16, Senior discloses means for resetting the fingerprint accepting flag when the collation between the fingerprint image and the fingerprint template has been completed (column 9, line 11-35).

19. Regarding claims 8, 13 and 17, Osten discloses means (collating unit 14) for outputting a result 18 of the collation to the personal computer (Figure 1; column 6, line 29-32).

20. Regarding claims 9 and 18, Senior discloses that the second memory unit is an IC card (column 10, line 3-16).

21. Regarding claim 15, Senior discloses that the fingerprint accepting flag is set when the fingerprint image is generated (column 9, line 22-35).

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 6,647,133 to Morita et al. discloses a fingerprint identification device-equip with a touch sensor for detecting a human finger.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan J Hesseltine whose telephone number is 703-306-4069. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan J. Hesseltine
July 1, 2004


JINGGE WU
PRIMARY EXAMINER